Hazardous Site Cleanup Division

FY 2008 Annual Report
November 2008

U.S. Environmental Protection Agency
Region 3

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Message from the Division Director:

It is my pleasure to present the second Annual Report for the U.S. Environmental Protective Agency's Region 3 Hazardous Sites Cleanup Division (HSCD). The purpose of this report is to communicate the progress made by HSCD staff in Fiscal Year 2008. This report is part of an ongoing effort to provide our employees, other regional staff, state partners, and other interested stakeholders with information on progress being made in Superfund and other related programs, including Emergency Response, Enforcement, Federal Facilities, EPCRA, and the Oil Program.

HSCD has been tremendously successful this past year in coordinating Lead Region activities for the Superfund programs; achieving all-planned construction completions; focusing on making sure these sites are ready to be returned to beneficial use by communities; responding and managing cleanups at removal sites with both technical complexity and political sensitivity; and coordinating and completing several significant homeland security exercises.

In FY 2008, the Division continued its focus on future planning by developing a Vapor Intrusion Project that has successfully raised Headquarter's awareness of this issue through the 2010 Budget planning process. HSCD also successfully developed the Elizabeth River Project Proposal, the only proposal selected for implementation under the Healthy Waters Initiative for 2010.

HSCD employees have continued their practice of partnering with other programs, as well as with our state partners, whenever possible. In FY 2008, we updated partnering agreements for 2009-2010 with each of our States.

Next year, we will continue to look for new ways to define and measure our successes and do a better job of communicating our priorities to the people with whom we do business every day. I believe the collaboration and teamwork within HSCD have demonstrated a noteworthy achievement by all our employees, providing a necessary foundation for a stronger Division.

I want to thank all HSCD enployees for their dedication and day-to-day accomplishments which have enabled this Division to make such significant achievements in protecting human health and the environment. I am looking forward to their continued support, input, and commitment for FY 2009, since this is what will fuel our future success!

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HSCD Highlights for 2008

❑ **GPRA and ANNUAL COMMITMENT SYSTEM TARGETS**
- Fifteen 2008 program targets were met or significantly exceeded;

❑ **SUCCESSFULLY FULFILLED LEAD REGION RESPONSIBILITIES**
- In our second year, HSCD continued to pioneer significant changes to the Superfund Lead Region process and procedures resulting in a more streamlined and less resource intensive approach to doing business;

❑ **PLANNING**
- Developed the Elizabeth River Project Proposal which was selected for implementation under the Healthty Waters Initiative for 2010;
- For FY 2008 targets, the Oil Program reached out to all of our States to identify facilities at high risk of being out of compliance with the Spill Prevention, Containment, and Countermeasure (SPCC) regulations and subsequently invited State inspectors to accompany EPA staff on inspections;
- Implemented QuickPlace Project Management for the remedial program;

❑ **PARTNERING**
- Updated partnering agreements for 2009-2010 with each of our State partners;
- Championed geospatial data management within the Division, contributing programmatic funds towards the Region's purchase of hardware, EquiS software and contractor support;
- Sponsored a Transaction and Bankers' Forum to partner with various interested parties in the Brownfields arena;
- Worked with other Region 3 Divisions to create the Response Support Corps Mission Essential Teams;
- Particpated with our Federal and State partners in three Regional Response Team Meetings;
- Achieved massive paper reduction through electronic submission of cost documentation to Potentially Responsible Parties (PRPs) and courts;
- As Lead Region for the Oil and EPCRA Programs, coordinated and planned the agenda for the first ever National Oil Program and Oil Enforcement Meeting;
- Formed stronger alliances with the Region 3 States in the site assessment programs, to improve program coordination with States' voluntary cleanup programs and the quality of final site assessment decisions.

Superfund Site Remediation

Examples of Successful Superfund Work Completed in 2008

Delaware River To Be Protected at Metal Bank

Twenty-five years of litigation resulted in the United States entering a consent decree with a group of utility companies for cleanup at the Metal Bank site. EPA approved the design on February 28, 2008 and construction began in July 2008. Construction is projected to take approximately one year to complete.

Sheet pile wall being installed along the Delaware River at the Metal Bank Superfund site.

The major construction components of the cleanup plan include: excavation of contaminated soils and placement of a soil cap at several inland PCB contaminated areas; decontamination of a large building; installation of a sheet pile wall adjacent to the Delaware River; removal of an underground storage tank and associated PCB contaminated soil; excavation of near-shore PCB contaminated sediments; and capping of the remaining PCB contaminated sediment areas in the Delaware River. When completed, components of the cleanup will prevent further seepage of PCBs into the Delaware River.

Excavation of PCB-contaminated soils from an inland area of the Metal Bank Superfund Site

Our Mission

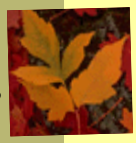
The mission of the Office of Superfund Site Remediation is to protect human health and the environment through the cleanup and revitalization of contaminated sites on the National Priorities List.

We are committed to working with our state and local partners, as well as other federal agencies, to address these contaminated sites in the most protective, innovative and cost-effective manner possible.

Eastern Diversified Metals Cap Turns Fluff to Green

Taking nearly two years to construct, the multi-layered impermeable cap for the fluff pile at the Eastern Diversified Metals (EDM) Site was completed in September 2008. Lucent Technologies, the PRP for the Site, began construction activities in September 2006 which included the consolidation of approximately 20,000 cubic yards of impacted perimeter soils onto the fluff pile, extension of the existing leachate and shallow groundwater collection systems, reshaping and regrading the entire Site, installation of 12.4 acres of geosynthetic liner materials, importing and placing of nearly 75,000 cubic yards of clean soil for the cap, and revegetation of the Site with a native seed mix.

A Preliminary Close-Out Report was signed by the Division Director on September 16, 2008, signifying that all necessary physical construction activities were completed. EDM is the 1,043th Site to be listed by EPA as construction complete.



Tractor laying out the geosynthetic and clay liner over the soil sub-base in October 2007.

Pictured at left is the completed cap on the south/ southwestern slope of the Eastern Diversified Superfund Site, September 2008.

Superfund Site Remediation
(continued)

Lagoons Now Sludge-Free at Occidental Chemical

The earthen lagoons at the Occidental Chemical site in Lower Pottsgrove, PA are finally sludge free after nearly 70 years. After a couple of false starts, a focused feasibility study determined that the lagoons' PVC sludge and contaminated soil would best be handled through excavation and off-site disposal. After EPA signed an ESD, Occidental Chemical, the PRP for the Site, began the work. The remediation contractor mobilized in June, and since then loaded more than 1,600 truckloads of material, over 41,000 tons, which was disposed of at a permitted landfill in Canada. Clean fill was brought in to backfill the areas. A long-awaited job well done.

PVC sludge loaded for off-site disposal

Aerial view of lagoons

Young Forest Takes Shape at Walsh Road Landfill

It has been a little over two years since bare root tree whips were planted at the Walsh Road Landfill in Honey Brook, PA. The 5.2 acre Site received approximately 4,100 trees as part of the evaporative/transpirative (ET) cover system which was completed in May 2006. This type of cover system will reduce surface water infiltration, preventing degradation of the groundwater. The ET cover included a three to four foot thick rooting and vegetative cover over the entire Site. When planted, the trees were an average of four foot tall. Approximately 40 percent of the trees at the Site are now over twenty feet tall and the Site is beginning to take the shape of a young forest.

Excavation and consolidation of waste at the Walsh Road Landfill Site (September 2005)

Two years after planting (south slope)

Site Remediation Highlights for 2008

Region 3 Superfund Sites with Human Exposures Under Control - **136**
Region 3 Superfund Sites with Migration of Groundwater Under Control - **107**
Region 3 Superfund Sites Which Achieved Construction Completions - **129**
Region 3 Superfund Sites Which Have Been Deleted Because They Have Met All Remedial Action Objectives - **44**
Region 3 Superfund Sites Ready for Anticipated Use - **57**

Preparedness and Response

Mission Essential Teams Now Formed

This year the Region formed seven "mission essential teams," under the Response Support Corps program, each with a different focus, to be called upon during large-scale emergency incidents. These teams are organized and trained to perform specific functions often required during an incident. The teams cover such topics as water, air, debris management, health and safety, procurement, finance and legal. An eighth team, laboratory support, is in the process of forming.

For each team, a specific division/office worked with HSCD to form their team by recruiting personnel, developing mission assignments, and identifying special training. The Regional Incident Coordination Team will develop procedures to call up and deploy the mission essential teams. The teams have been incorporated into the

EPA workers installed air monitors at the Pocono Raceway in June 2008 to watch for radiation, biological and chemical agents which could threaten the large crowd attending the annual NASCAR race.

Our Mission

To respond to emergency incidents and time-critical situations involving oil and hazardous materials regardless of cause—accidental, natural or terrorism—which threaten public health and the environment; and to plan and prepare to improve our response capabilities to such incidents, and in particular, incidents of national significance.
We do this, working with federal, state and local partners.

First in the Nation Incident Training Exercise for Executives

Building on the lessons learned from Hurricane Katrina, EPA Headquarters revised the National Approach to Response policy, calling for a regional incident coordinator. Here in the region, our division developed an exercise geared specifically for the Regional Administrator, the Deputy Regional Administrator and the Division Director to test their interactions and approaches to an incident. The exercise, held in July, was very successful in getting the region's senior executives to walk through the actual process of deciding who should represent the region in a national emergency. The exercise enabled the region to develop a protocol in case of an actual event.

Preparedness and Response Highlights for 2008

Cleanups

❏ Managed various phases of cleanup at 86 removal sites, including some with significant technical complexity and/or political or community sensitivity. These sites included: Borit Asbestos, Elkton Firehole, and Stony Creek Technologies.

❏ In support of the Pennsylvania Department of Environmental Protection, initiated an emergency response stabilization and cleanup action at the Strube Radiation site. This site includes thousands of radioactive devices poorly stored in multiple warehouses in Lancaster, PA. They present an imminent threat to local citizens living nearby.

Homeland Security

❏ New position created - Regional Homeland Security Coordinator.

❏ Followed up on Homeland Security awareness initiative by working with the Region on expanding the Region's Response Support Corps and by enhancing members' training in the Incident Command System.

Training, Conferences, Exercises

❏ Organized a CEPP conference in Pittsburgh with more than 950 attendees.

❏ Conducted a hurricane response exercise with state and local response partners in Southeastern Pennsylvania and Delaware.

❏ Participated in TOPOFF 4 exercise in Phoenix & Portland

❏ Planned and executed two large-scale training & pre-deployment events in June and August for the NASCAR races at the Pocono Raceway.

❏ Major full-field exercise and training events in cooperation with the City of Philadelphia Fire Department at the Fire Academy facility. The training provided by the City's Bomb Squad addressed counterterrorism and explosive devices.

Support and Teamwork

❏ Provided planning and logistics support to FEMA and the Federal Executive Board and participated in the execution of a Philadelphia-wide Continuity of Operations Plan (COOP) exercise entitled Liberty Down 2. HSCD also helped the Region in planning and executing a concurrent, full deployment of all Phase 1 COOP personnel to the EPA Region 3 COOP facility. This involved more than 80 participants in the day's events.

❏ Provided planning support to states and other federal agencies by conducting three Regional Response Team meetings in the past year; incorporating training into the three-day agendas, chairing the multi-agency standing team meetings and chairing a specific workgroup that focuses on spill countermeasures.

Preparedness and Response (continued)

Examples of Successful Response Activities Completed in 2008

Strube Removal

Measuring radioactivity at Strube site

Chaotic mess at Strube Warehouse

Staging drums for off-site disposal

Strube Site Radiation Risk Removed from Lancaster Neighborhoods

It would be tough enough to work in an environment contaminated by radioactive materials, but to sift through 58 million items, package them and ship them off for proper disposal, now that's above and beyond. That's what the removal program is doing at the Strube, Inc. removal site, consisting of seven different locations throughout Lancaster County.

Strube's owner, who is now deceased, bought up surplus parts at the end of World War II for sale and/or refurbishment. Many of these parts, stored in warehouses in Marietta, Columbia, Maytown and Mt. Joy, are contaminated with luminescent paint containing radium-226.

Their condition varies - some are damaged, and in many cases, stored in a chaotic mess. Contractors must methodically search through each warehouse's inventory for radioactive parts and catalog every item placed in drums for disposal. The drums, nearly 1,700, to date are shipped to Oak Ridge, TN where they are compacted and then sent to be landfilled at the Hanford facility in Richland, Washington.

Due to elevated background levels of radiation, each floor of each warehouse must be searched thoroughly - five or more times. Cleanup is expected to be completed by the end of winter 2009.

Ft. Reno Park

Temporary barriers were erected along Ft. Reno Park's perimeter.

Fears Allayed at Ft. Reno Park In D.C.

Sometimes the role of the removal program is not to remove contamination, but to remove fear. This was the case at Ft. Reno Park in Washington, D.C. last spring.

National Park Service officials had closed the 33-acre federal park as the Memorial Day weekend approached because they believed the soil contained high levels of arsenic. This belief came about because a USGS scientist who was working on his dissertation, had observed, via aerial photography, that the park's vegetation looked stressed - an indication that arsenic may be present in soil. Based on the concern raised by the scientist, the USGS conducted soil sampling which initially showed levels 25 times the safe limit.

The day before the park closed, the District called in the EPA. An OSC was dispatched to the scene the next day, meeting with the director of the D.C. Department of the Environment, developing a sampling plan, and arranging for pediatricians at George Washington University to answer medical inquiries. When all was said and done, dozens of EPA soil samples showed that the park's arsenic levels were well below the safe limit. While it was unclear why the USGS samples were so high, in the end, it was EPA's sampling results that ended the crisis and allowed the park to reopen only two weeks after it had closed.

Federal Facility Remediation

Our Mission

To ensure that sites potentially posing risk to human health and environment are identified, assessed and addressed in a manner consistent with the requirements of CERCLA, in partnership with other federal, state and local stakeholders.

U.S Coast Guard Cutter named Durable docked at Curtis Bay

Sgt. 1st Class Brian Eisch gives a thumbs up indicating that he's ready to engage targets during a July 15, Fort Eustis, Va. rifle exercise.

Signing of Two Federal Facility Agreements

Two Federal Facilities Inter-Agency Agreements (FFA) were signed in Region 3 in 2008! The first one, between EPA and the Department of the Army, was signed on March 25, 2008 for Fort Eustis. This is the first FFA to be signed since Willow Grove Naval Air Station in 2005. This agreement lays out the roles each agency will follow to protect the environment and support approved land uses as the cleanup continues.

The second FFA was signed with the Coast Guard for the Curtis Bay Coast Guard Yard on September 11, 2008. Before becoming final, FFAs must go out for public comment. These agreements, required by Superfund, are now in place at more than 150 federal facilities nationwide. The Curtis Bay agreement is the last of those required by civilian federal agencies. The FFA also identifies roles, responsibilities, processes, and enforceable schedules EPA will follow to protect the environment and support approved land uses.

"Today's agreement is a significant milestone that will benefit the local community and environment. This agreement shows that EPA and the Coast Guard are on the same page on how we will move forward to clean up the site."

Donald S. Welsh, Regional Administrator

Interesting Discoveries at Nansemond Removal Site

Example of Successful Federal Facility Work in 2008

The Corps of Engineers began an exploratory removal action at the Nansemond River Beachfront to ascertain the nature and extent of munitions debris buried at the site. The removal action consisted of a series of parallel trenches dug into the bank along the Nansemond River. Recent discoveries include a 37 mm projectile, French rifle grenade, a 75 mm projectile, numerous fuzes and boosters, along with over 20 pounds of bulk TNT.

Given these recent discoveries, the timeframe for the completion of the removal action has been extended to allow for the removal and destruction of the munitions and bulk TNT. It is anticipated that the removal action will be completed by the end of 2008, barring any new discoveries.

Removal of buried ordnance and explosives along the beachfront at Nansemond

Federal Facility Highlights for 2008

Federal Facilities Sitewide Ready for Anticipated Use - 2
Federal Facilities with Groundwater Migration Under Control - 4
Federal Facilities with Human Exposures Under Control - 2
Federal Facilities Remedial Action Starts - 14
Federal Facilities Remedial Action Completions - 6
Federal Facilities Five Year Reviews Completed - 4
Federal Facilities Decision Documents Issued - 22

Site Assessment

Our Mission

The Site Assessment Program is one of the many starting points for determining whether or not a hazardous waste site requires EPA involvement.

The goal of Site Assessment is to ensure that sites which have been identified as posing a potential threat to human health and the environment are assessed and addressed in a manner that is consistent with Superfund law.

In most instances, where the site assessment team is involved, we work closely with other federal, state and local representatives to ensure the potential contamination is addressed by the appropriate authorities.

Local communities can rest easy knowing that the environmental and health issues are being addressed as efficiently as possible.

Superfund Program Listing Additional Sites on the NPL

In FY 2008, the Superfund program finalized two sites and proposed two additional sites to the National Priorities List (NPL). In March of 2008, the Chem-Fab site in Pennsylvania, and the Hidden Lane Landfill site in Virginia were added to the NPL. In September 2008, the Borit Asbestos Tailings site in Pennsylvania, and the Fort Detrick Area B Groundwater site in Maryland were proposed to the NPL.

Regional Decision Team Explores All Options

A number of additional sites are being considered for listing in FY09. In FY08, the program also resurrected the Regional Decision Team (RDT), comprised of managers from the remedial, removal, site assessment, and support programs. The purpose of the RDT is to discuss options for addressing specific sites within the Region. Alternatives to listing such as the Superfund Alternative Sites process, removal cleanups and State deferrals are discussed and debated prior to making a final determination on each site. The RDT process ensures that all options are considered prior to listing a site on the NPL.

For FY '08, the Site Assessment program met its GPRA goals of issuing 31 assessment decisions. Two new sites were proposed to the NPL.

Three RODs in One Year at NASA's Wallops Island!

HSCD coordinated with NASA, and the Virginia Department of Environmental Quality to complete three Records of Decision (RODs) for FY08. The first ROD for the Fire Fighting Training Area was completed in December 2007 and an additional ROD was signed for the Waste Oil Dump in April 2008. A No-Action ROD was completed for the Scrapyard in February 2008 to close out a removal action of radium, thorium, and PCB contaminated soil. Confirmation sampling after the removal showed the soil did not pose a risk to future residents.

The Air Force Minotaur 1 rocket carrying the Missile Defense Agency's Near Field Infrared Experiment (NFIRE) satellite was launched at 2:48 a.m., Tuesday, April 24.

Site Assessment Highlights for 2008

√ Completed 31 Final Assessment Decisions - these decisions are critical to the Division's work, because they are used to decide whether a site requires long-term remediation, and if so, whether the site will be added to the National Priorities List, or deferred to another authority.

√ Finalized two sites and proposed two sites to the National Priorities Listing (NPL) - In March 2008, the Chem-Fab site in PA, and the Hidden Lane Landfill Site in VA were added to the NPL. In September 2008, the Borit Asbestos Site in PA and the Fort Detrick Area B Groundwater Site in MD were proposed to the NPL. A number of additional sites are being considered for listing in FY 09.

√ The Site Assessment Program resurrected the Regional Decision Team (RDT), comprised of managers from the remedial, removal, site assessment, and support programs who discuss options for addressing specific sites within the Region. This process ensures that all options are considered prior to listing a site on the NPL.

Working With Communities

Community Involvement - Site Success Stories

Concerns Quieted at Kimberton Superfund Site

The Kimberton site, in Kimberton, Pa. had become inflammatory fodder for the local media, portraying the site's groundwater contamination as a screaming health threat. Complicating matters, the local school district planned to build a new elementary school adjacent to the site without notifying the community until construction contracts were in place. The school district scrapped the plans based on the community's outcry. Community Involvement Coordinators successfully addressed concerns and panic in this community with a blend of door-to-door visits, community interviews, and township-wide fact sheet distributions

Greater Understanding at BoRit Asbestos Site

The contractor above is raking the soil and taking air samples.

At the Bo-Rit Asbestos site in Ambler, Pa. the community used, for the first time, one of EPA's newest resources - a Technical Assistance Support for Communities contract, which provides technical expertise to citizens involved in the decision-making process at Superfund sites. Thanks to the innovative TASC contract with a national environmental consulting company, the Community Advisory Group is fully engaged in complex issues ranging from asbestos cleanup to stream bank restoration. The success of this dynamic partnership serves as a model for other regions to take advantage of this new outreach service.

Community Involvement Highlights for 2008

√ The Community Involvement Branch which includes management of the Freedom of Information Act (FOIA) has held 85 public meetings to inform and involve community members and local elected officials with our work at sites, as well as to educate them on the Superfund process.

√ Public notification through print media required the writing and publishing of 71 newspaper ads informing communities of various aspects of site work and cleanup milestones.

√ After researching hundreds of site files, copying tens of thousands of pages and mailing the requested information, FIOA staff responded to 1113 FOIAs in a timely manner.

Our Mission

- to advocate and strengthen early and meaningful community participation during Superfund cleanups;
- to prepare and respond to public information needs during emergency responses;
- to make the fullest possible disclosure of information without unjustifiable expense or unnecessary delay to any FOIA requester.

Drinking Water Fears Being Addressed at Battlefield Golf Club

Battlefield Golf Club Site Assessment

Community involvement has been key to the ongoing success of EPA's work at the Battlefield Golf Club in Chesapeake, Va. The city asked EPA to determine the extent of contamination at this active course, where fly ash (a coal-burning product from the local power company) was used as a fill by the course developer. Since then, the Community Involvement Coordinator has worked closely with the On-Scene Coordinator and local officials to ensure EPA's investigation of the fly ash's potential impact on drinking water is communicated to concerned residents and golfers. During public forums and door-to-door visits, citizens have expressed satisfaction and gratitude with EPA's assistance. As of this report's going to print, EPA awaits test results from over 80 home wells and is prepared to communicate the Agency's next steps to ensure public health remains protected.

Pictured above is the Freedom of Information Act (FOIA) staff who responded to more than 1,113 FOIA requests in 2008. From left to right are Cherese Peters, Wanda James, Henrietta Woodard.
Not pictured is FOIA member Louise Wilson.

Brownfields and Revitalization

Examples of Successful Revitalization Efforts

Clean Water Funds Finance Delaware Riverfront Makeover

Mangled mess along the riverfront in Bucks County will be cleaned up and redeveloped.

A 26-acre site along the Delaware River just north of Philadelphia is soon to be transformed from an industrial wasteland to a thriving, mixed-use property. Interestingly, some of the redevelopments will be done using money from an unlikely source - EPA's Clean Water State Revolving Loan Fund. The Redevelopment Authority of Bucks County (PA) and Mignatti Companies, dba Bensalem Redevelopment LP, are planning to build a series of mixed-use commercial, office and residential developments, linked by pedestrian and bike paths and areas of open space.

This makeover will bring access to the Delaware River waterfront, recreational opportunities, high-quality housing and employment to the area. The county and Mignatti are using a $5.3 million loan from the Pennsylvania Infrastructure Investment Authority, also known as PENNVEST, to remediate soil and groundwater contamination on the site located in the Cornwell Heights section of Bensalem Township. PENNVEST provided the money using funding from EPA's Clean Water State Revolving Loan Fund program.

Our Mission

- is to manage the cleanup, redevelopment and revitalization of Brownfield sites under the Small Business Liability Relief and Brownfields Revitalization Act; and

- to develop and share information to promote land revitalization of contaminated properties.

Environmental Insurance for Stadium Bought with Revolving Loan Fund Money

Coca-Cola Park, a beautiful, new minor-league baseball stadium opened in April 2008 on a 26-acre brownfield in Allentown, Pa. Crucial to the redevelopment was a $70,000 sub-grant to Lehigh County to support the purchase of environmental insurance.

New home of the Allentown Iron Pigs

The money came from the city's Brownfields Revolving Loan Fund (RLF) established through a 2004 grant received by the city from EPA. This was the first time in Region 3 history, and the second time nationwide, that a grantee has collaborated with a sub-grantee to purchase environmental insurance using RLF money.

Assessment Grant Will Support Ambler Commuter Line Redevelopment

A commuter-oriented office/residential complex will soon to be built on two adjacent properties near the train line in Ambler, Pa. An old boiler house will be rehabilitated to retain its historic façade and its interior will be converted to three stories of office space.

The adjacent property, the Crossings, will be home to a 288-unit condo complex. Safe public access will connect both buildings to the train station. An EPA brownfields assessment grant given to Montgomery County was used to assess the boiler house.

Boiler house in Ambler will soon be office space

Brownfield and Revitalization Highlights for 2008

- Awarded over $3.75 million in grants to 20 communities in the Mid-Atlantic region, including assessment grants in Pennsylvania, Virginia and West Virginia, cleanup grants in Delaware and Maryland and a job training grant to a foundation in Braddock, Pennsylvania.

- Published the quarterly Land Revitalization Update electronic newsletter covering land reuse activities. More than 2,000 brownfields stakeholders in the Mid-Atlantic region subscribe.

- Published the booklet Mid-Atlantic Brownfields: Recasting the Future of Manufacturing and Mining Lands highlighting the many successful brownfields redevelopment projects in our region.

- Provided training to grantees, state personnel, developers and lenders including webinars on grant application development and seminars on green remediation, marketing opportunities for lenders, brownfields/shopping center redevelopment and the brownfields grant process.

- Charted a new direction for the program by addressing climate change at brownfields sites through several pilot projects and initiatives including the study of the potential for biofuels on mine-scarred lands; development of a life-cycle analysis tool to assess carbon footprints and energy usage at brownfields sites; and the development of map overlays of potential renewable resource opportunities with Superfund, RCRA and brownfields sites.